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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,203	04/22/2008	Nobuharu Hama	TOMI 200014US01	7411
27885	7590	11/18/2010		
FAY SHARPE LLP 1228 Euclid Avenue, 5th Floor The Halle Building Cleveland, OH 44115			EXAMINER LE, QUE TAN	
			ART UNIT 2878	PAPER NUMBER
			MAIL DATE 11/18/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,203	Applicant(s) HAMA, NOBUHARU	
	Examiner Que T. Le	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/18/06</u> . | 6) <input type="checkbox"/> Other: ____. |

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 11, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Tetsuro Sakano JP 01189518.

Sakano discloses an optical encoder system comprising a detected element (12) having a pattern (18 figures 2 and 3) for generating a position signal formed thereon; and a sensor (20) for detecting the position signal based on the pattern by receiving an electromagnetic wave generated on the detected element by light irradiation from a light source (18), characterized in that the pattern is visibly formed like gradation (Figure 2) to be able to send out the electromagnetic wave of a wavelength continuously different according to a position on the detected element to the sensor side. The element is in a disk like form.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2878

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5-10, 12-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tetsuro Sakano JP 011189518.

With respect to claims 3 and 17, although Sakano lacks an inclusion of a spectral spectrograph or a primary color filter for separating the electromagnetic wave into wavelengths, the use of a color filter and/or a spectral spectrograph for separating electromagnetic wave into different wavelengths in an optical system would have been obvious to one of ordinary skill in the optical art in order to provide separate signal detections. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sakano accordingly in order to provide separate position detections; this would provide a better direction detection of the element intended by Sakano.

With respect to claims 5, 6 and 20, although Sakano lacks a clear inclusion of different forms of the detected element, selecting a particular form of a detected element such as a parallelogrammic form (of moveable scale) and/or a spherical form (of a moveable disc) in an optical position detection system would have been obvious involving routine skill in the art as a matter of intended use. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sakano accordingly in order to provide more options to the use of detected element, if so desired, without altering the basis performance of the system.

With respect to claim 7, although Sakano discloses a detection of both forward and reverse movements of the detected element with coded patterns but lacks a clear

Art Unit: 2878

inclusion of an origin mark or pattern, it would have been inherently included, however, if not, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sakano accordingly in order to provide more accurate direction detection from the system.

With respect to claims 8-10 and 12-16, although Sakano discloses coded patterns but lacks a clear inclusion of color patterns, the use of different color patterns on a detected element for providing more accurate position detection of the element would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sakano accordingly in order to provide more colorful coded patterns for the detected element.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

I) Setbacken et al 5,936,236 disclose an optical position detection system having a moveable detected element with different graduation tracks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Que T. Le whose telephone number is (571) 272-2438.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Epps Georgia, can be reached at (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2878

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Que T. Le/
Primary Examiner, Art Unit 2878